**Sprint Retrospective**

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Over the past few weeks of this course, we have explored the benefits of Scrum and the different roles that are involved in an agile methodology. Each of these roles have been able to provide a perspective and allow for a complete and quickly made project for SNHU Travel. To begin with the Product Owner is a very crucial role in acquiring information from the customer and creating user stories. The product owner was able to achieve this from a one–on–one meeting with the customers and keep open communication with the customers for more details as they were needed. For example, in the assignments for this course there were some moments where the immediate user stories were a little vague or the desired results of those stories were a little to vague. The Product Owner could then reach out to the customers for clarification and receive as much detail as possible to achieve the goal they were hoping to see.

The Scrum Master was another role we were required to role-play, and this role seemed to be a more leadership role but without the leadership title. The Scrum Master was in-charge of keeping stakeholders on a project aware of the goings on of the project and to act as a pseudo manager over the development team, gathering everyone for stand-up meetings and discussing the goals and user stories to be completed. This also included Backlog Refinement which allowed us to decide which of the features were of the highest precedent when looking to begin a sprint. As for the SNHU travel project I believe that the role as Scrum Master allowed me to decide which of the user stories were of highest precedent for the testers and developers, allowing them to focus a lot more of their energy there rather then working on smaller features that may not have been as crucial to completing.

The next two roles of Tester and Developer can go together a bit as they both are more involved in the coding aspect of the project and are much more focused on creating working code. The Tester creates the tests and the test pass or fail requirements which helped a lot in the SNHU Travel project as it allowed for the developers to take a more focused approach on the actual coding while the testers gave feedback on what the needs of the program were. The Developers would then take the tests and hopefully implement some agile tools such as Test-Driven Development or the Two Pizza Rule to come up with an efficient method for producing working code. In the example of the SNHU Travel project it was helpful to act as both the Tester and the Developer. Acting as the Tester allowed me to create tests that could be fully fleshed out and that I understood well to then be able to implement in code. As the Developer I was able to use a Test-Driven Development approach to creating my working code and to come to an understanding on my code wasn’t working properly whenever it might have failed.

I think that the Scrum-agile approach to Software Development Lifecycle helped the user stories come to completion because the whole design of the Scrum-agile methodology pushes us towards completing the high-importance user stories while attempting to create these changes in a timely manner with sprints and reviews on what is working verse what is not working. The stand-up meetings are a fine example of this, the team is allowed a 15-minute window of time each day to discuss what they are accomplishing, where their roadblocks might be at, and what they plan to accomplish on that day. This keeps the whole team on track and keeps communication open as to what is happening within each sub-group of the team. Having the Scrum Master refine the Backlog to choose the priority for given stories as well as the developers giving some indication to roughly how much time each story would take allows for much more organization and allows for completing these stories in the most efficient way possible. Finally, the point where agile was able to shine was with the project being interrupted and changing directions. This was the moment that the customers were wanting the vacations presented to be more about Detox and Wellness and not just the top five vacation spots. In a Waterfall method this could have caused a lot more work since the entire plan would have been around the originally desired idea. However, with Scrum and agile it was easy to be able to create a new user story with a high priority for making these changes as they wouldn’t drastically change the underlying technology running the project and therefore didn’t cause any change in the expected time for the project to be finished in either.

Communication among team members is another fine example of how well Scrum works for project management. Having the stand-up meetings or applications that allows for open lines of communication makes things work much smoother and come up with more concrete plans for your project or group activity. A fine example of this was with my discussion team, we had begun our communications via a large email group but quickly transferred over to an app for open communication called Discord. In this we were able to essentially have a stand-up meeting with people being present and able to discuss the role that we wanted as well as planning our discussion posts to the discussion board. This made this pretty easy and flowed very smoothly to complete the task at hand. We even discussed the potential tools that we would want to include in our “Scrum Team” such as the Two Pizza Rule, Pair Programming, Test-Driven Development, and some discussion over the types of software we could use for backlog management. All these tools absolutely have their place on a Scrum team and would be very invaluable for completing work in an effective manner.

Overall, for the SNHU Travel Project, I believe that the Scrum Approach was a useful method to use here however I don’t believe that this project would be as complicated to need such an agile methodology. I think the major pro’s of the agile approach are the flexibility and the communication. As mentioned previously, the example of where the agile approach was very useful was when the customers changed some of the requirements for the project. The ability to integrate this change gracefully and without the need to change the time estimate was invaluable to getting the project completed in a timely manner and a very powerful tool for scrum in this regard. Communication is also one of the most powerful tools with Scrum in my opinion as I believe having open lines of communication with the team and the customer allows for the correct work to be completed in an efficient and timely manner and it allows for additional input from the customer. As for a waterfall methodology I can see how that might have been appropriate here as well. I don’t think that this project was overly complicated, and it is probably something like what has been created in the past. If using a waterfall method, I think that it’s possible there is something that is already like this that exists, and the project may have been much faster to use that and then change it to fit the requirements. With waterfall you could develop a full understanding of what you might need from the start, since this isn’t very complicated, and the only variables here would be the customer changing there mind.